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WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C.
11491 SUNSET HILLS ROAD
SUITE 340
RESTON, VA 20190

EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/603,749	SCHRADER ET AL.	
	Examiner	Art Unit	
	Ian N. Moore	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7-13-06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. **Figures 1 and 2** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because there is a lack of descriptive text legends for FIG. **1 and 4** (e.g. in FIG. 1, **1'** should be labeled as **Sender 1'**, **6a'** should be labeled as **CODEC 6a'**, etc.) [see 37 CFR 1.83, CFR 1.84 [5(e)], MPEP § 608.02(e)].

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 1 recites, "changed **data rates**" in line 7. **Nowhere** in the specification provide the support for "data rate". Instead, the disclosure appears to support "changed in loading".

Claim Objections

4. Claims 1-3,11,12-14,16 and 17 are objected to because of the following informalities:

Claim 1 recites, "**Mechanism** for..." in line 1. Since "mechanism" is neither a process, machine, manufacture nor composition of matter, applicant is suggested to revise the usage in order to avoid potential 35 U.S.C. 101 issues.

Claim 1 recites, "**wherein** a second processing unit" in line 5. For clarity, it is suggested to indent the body of the claim after **wherein** clause, in order to distinguish from its preamble.

Claim 1 recites, "**the** data" in line 3 and "**data**" in line 9. For consistency with "time-synchronous data" recited in line 1, it is suggested to revise as "**the time-synchronous data**".

Claim 1 recites, "**and that after**" in line 8. For clarity, it is suggested to revise the usage of "conjunction" (i.e. and), "pronoun" (i.e. that), and "proposition" (i.e. after).

Claim 3 recites "**the** completion" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites "**the** parallel processing unit" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites "**each other**" in line 3. It is unclear whether "other" refers to "subcomponents" or "parallel processing units".

Claim 12 recites "**the** changed data load" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites, "after switching process, the subcomponents of the first processing unit are **de-attached from each other**" in line 1-2. It is unclear whether subcomponents of the first processing unit are de-attached/separated from each other, or from the first processing unit.

Claim 14 recites, "**the** subcomponents of the first processing unit **are included in one of the second processing units**" in line 2-4. It is unclear whether the subcomponents of the first processing unit, or "similar" subcomponents are included in one of the second processing units.

Appropriate corrections are required.

Claim Rejections - 35 USC § 112 – First Paragraph

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites, "the data is processed **and/or** transmitted at the sender " in line 3, "unit is setup **and/or** adapted" in line 6, "based on changed data rates **and/or** network characteristics" in line 7, "the processing **and/or** transmission of data" in line 9. Nowhere in the applicant disclosure discloses all/complete different combination of limitations separated by "**or**", "**and**", **or "and/or"**. FIG. 3 discloses a generic high-level component of the invention and FIG. 4 discloses timing diagram of the transmission. Thus, the speciation fails to support all/complete set of different combination of limitation set forth in the claims.

Claims 2,3,11,12,16, and 17 are also rejected for the same reason as set forth above in claim 1.

Claim 13 recites, "after switching process, the subcomponents of the first processing unit are **de-attached from each other**" in line 1-2. **Nowhere** in the applicant disclosure recites the support of claimed invention of "separating/de-attaching" subcomponents (i.e. 6a',6b',6c',..., per FIG. 3). Per applicant FIG. 3, the first processing subcomponents (6a',6b',..) are still attached. However, applicant disclosure recites, after switching, the first processing subcomponents (6a',6b',..) are de-attached/separated from the second processing subcomponents (7a',7b',...). *Accordingly, for the purpose of the examination, examiner will assume "in light of the applicant disclosure" that after switching, the first processing subcomponents (6a',6b',..) are de-attached/separated from the second processing subcomponents (7a',7b',...).*

Claim 14 recites, "**the** subcomponents of the first processing unit **are included in one of the second processing units**" in line 2-4. Nowhere in the applicant discloses recites the support of claimed invention subcomponents (i.e. 6a',6b',6c',..., per FIG. 3) of the first processing unit 3 are included in a second processing unit 4. Per FIG. 3, a second processing unit 4 has subcomponents (7a',7b',...). Clearly, subcomponents (7a',7b',...) are not the same as subcomponents (6a',6b',...) as claimed by the applicant. *Accordingly, for the purpose of the examination, examiner will assume "in light of the applicant disclosure" that* ***similar*** *(same type of) subcomponents of the first processing unit are included in one of the second processing units.*

Claims 4-10, 15, and 18 are also rejected since they are dependent upon rejected claim 1.

Claim Rejections - 35 USC § 112- second paragraph

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "the data is processed **and/or** transmitted at the sender " in line 3, "unit is setup **and/or** adapted" in line 6, "based on changed data rates **and/or** network characteristics" in line 7, "the processing **and/or** transmission of data" in line 9. It is scope of claim is indefinite and unclear since the different combination of limitation are separated by "and", "or", or "and/or" . The speciation fails to clarify all combination of different variation of the claimed invention.

Claims 2,3,11,12,16, and 17 are also rejected for the same reason as set forth above in claim 1.

Claims 4-10,13-15, and 18 are also rejected since they are dependent upon rejected claim 1.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-4 and 6-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Zahn (WO 00/62254).

Regarding Claim 1, Zahn discloses mechanism (see FIG. 1,2; apparatus 1) for the transmission of time-synchronous data (see FIG. 3, video signal 50; see page 4, paragraph 3-8;

see page 9, last paragraph; real time/synchronous video signal utilizing MPEG or HDTV) from a sender to a receiver using a network (see page 4-6; a video signal must transmit from a transmitter to a receiver/customer over a network), where the data is processed and/or transmitted at the sender as well as the receiver side using at least one first processing unit (see FIG. 1, 2,4,5, a combined system of Processor CPU 5 and memory 6 processes the video data at transmitter or receiver/customer; see page 9, last paragraph), wherein

a second processing unit (see FIG. 1,2, 4,5, a combined system of Processor CPU 5' and memory 6') parallel to the first processing unit (see FIG. 1,2,4,5, CPU 5' is parallel to CPU 5; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2 to page 13, paragraph 2) is setup and/or adapted based on changed data rates and/or network characteristics (see page 8, paragraph 3-7; page 11, paragraph 1 to page 12, paragraph 3; see page 13, paragraph 5-6; CPU 5' is setup for parallel processing according to network dynamic/change nature of real time data load or bandwidth/delay (i.e. network characteristics)), and that after switching (see FIG. 2, switching/changing to CPU 5' (to process frame 102 or 103 after frame 101 is processed by CPU 5); see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5), the processing and/or transmission of data is performed using the second processing unit (see FIG. 1,2,4,5; CPU 5' performs processing/transmission of video data frame; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2 to page 13, paragraph 2).

Regarding Claim 2, Zahn discloses wherein the setup and/or adaptation of the second processing is started using a trigger event (see FIG. 1, PULL request 1 is used to being

processing video frames in CPU 5'; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4).

Regarding Claim 3, Zahn discloses wherein the switching is performed after the completion of the setup and/or adaptation of the second processing unit (see FIG. 2, switching/changing to CPU 5' after setup/configuration/setting CPU 5'; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 4, Zahn discloses wherein the switching is performed after reaching a certain switching condition (see FIG. 2, switching/changing to CPU 5' after frame 101 is processed by CPU 5; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 6, Zahn discloses wherein the data is processed in the first processing unit using a plurality of subcomponents (see FIG. 2, a first combined processing system comprising CPU 5 and memory 6; see page 12, paragraph 2).

Regarding Claim 7, Zahn discloses wherein the subcomponents includes at least one of a memory buffer (see FIG. 2, a first combined processing system comprising memory 6; see page 12, paragraph 2).

Regarding Claim 8, Zahn discloses wherein the data is processed in the second processing unit using a plurality of subcomponents (see FIG. 2, a second combined processing system comprising CPU 5' and memory 6'; see page 12, paragraph 2).

Regarding Claim 9, Zahn discloses wherein the subcomponents includes at least one of a memory buffer (see FIG. 2, a second combined processing system comprising memory 6'; see page 12, paragraph 2).

Regarding Claim 10, Zahn discloses wherein the subcomponents are connected during the setup (see FIG. 2, CPU 5' and memory 6' are connected during the configuration/setups; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 11, Zahn discloses wherein the first and/or second processing unit is initialized after the setup (see FIG. 2, a combined system of CPU 5/5' and memory 6/6' initialized/started/begin processing after the configuring/setting-up the each pipeline connections 1; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 12, Zahn discloses wherein each of the subcomponents of the parallel processing unit is adapted to each other (see FIG. 2, CPU 5,5', 5" and memory 6,6', 6" in parallel first and second combined system accommodate/conform to each other during parallel processing), the changed data load and/or changed network characteristics (see page 8, paragraph 3-7; page 11, paragraph 1 to page 12, paragraph 3; see page 13, paragraph 5-6; parallel processing accommodate/conform to the network dynamic/change nature of real time data load or bandwidth/delay (i.e. network characteristics)).

Regarding Claim 13, Zahn discloses wherein after the switching process, the subcomponents of the first processing unit are de-attached from each other (see FIG. 2, after switching/changing to CPU 5', CPU 5 and memory 6 are separated/de-attached from CPU 5' and memory 6; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 14, Zahn discloses a plurality of the second processing units is setup (see FIG. 2, a second combined system of CPU 5' and memory 6' and a third combined system of CPU 5" and memory 6" are configured/setup); and

the subcomponents of the first processing unit are included in one of the second processing units (see FIG. 2, similar CPU and memory from a combined system of CPU 5 and memory 6 are included in a second combined system of CPU 5' and memory 6'; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 15, Zahn discloses wherein after the switching process, the subcomponents of the first processing unit remain connected (see FIG. 2, after switching/changing to CPU 5', CPU 5 and memory 6 are still connected; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 16, Zahn discloses wherein additional second processing units (see FIG. 2, a combined system of 5" and memory 6", and more pipelines 1) are setup and/or adapted based on changed data load and/or network characteristics (see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5; third combined system of 5" and memory 6" or more pipelines are setup/configured to accommodate/conform to the network dynamic/change nature of real time data load or bandwidth/delay (i.e. network characteristics)).

Regarding Claim 17, Zahn discloses wherein an additional processing unit (see FIG. 2, a combined system of CPU 5" and memory 6") for the processing and/or transmission of data is used in sequence with the first and/or second processing unit (see FIG. 2, a combined system of CPU 5" and memory 6" process the video data (i.e. processing of frame 103) in parallel sequence

with first and second combined systems (i.e. processed frames 101 and 102); see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Regarding Claim 18, Zahn discloses wherein the data is gathered with one of mechanisms for acquiring visual data and speech data (see page 4, paragraph 3-8; see page 9, last paragraph; video data is collected/received by a apparatus 1 for obtaining/acquiring video data (i.e. image/visual data and audio/speech data).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zahn in view of Muniere (US007095717B2)

Regarding Claim 5, Zahn discloses wherein the certain switching condition is whether at least one given parameter (see FIG. 2, switching/changing to CPU 5' or 5" is based on whether frame 101 is processed by CPU 5; see page 9, last paragraph; see page 11, paragraph 1-2; see page 12, paragraph 2; see page 13, paragraph 4-5).

Zahn does not explicitly disclose reaches at a predetermined value. However, Muniere teaches the certain switching condition (see FIG. 4, Switch 41) is whether at least one given parameter reaches at a predetermined value (see FIG. 3-4, switching is performed according to meeting threshold/maximum High/low priority data counts; see col. 5, line 4-55; see col. 6, line

26-45). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide switching when reaching a predetermined value, as taught by Muniere in the system of Zahn, so that it would provide guaranteeing a minimum time interval for transmission of data packets; see Muniere col. 6, line 40-45.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ian N. Moore
Art Unit 2616

5-19-07

DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600